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Arrhythmias

ARE THE MADIT2 CRITERIA FOR ICD IMPLANTATION APPROPRIATE FOR JAPANESE PATIENTS?: INCIDENCE AND PREDICTORS OF APPROPRIATE THERAPY IN 10-YEAR EXPERIENCE

ACC Moderated Poster Contributions
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Session Title: Evaluating and Re-evaluating Implantable Device Practices: Guidelines and Utilization
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Authors: *Yoshimori An, Kenji Ando, Yoshimitsu Soga, Michio Nagashima, Masatsugu Ooe, Masakiyo Nobuyoshi, Kokura Memorial Hospital, Kitakyushu, Japan*

Background: Data on long-term follow-up and factors influencing appropriate therapy in the Multicenter Automatic Defibrillator Implantation Trial 2 (MADIT2)-like Japanese patients with implantable cardioverter-defibrillator (ICD) are limited.

Methods: Between January 2000 and December 2009, a total of 261 patients without prior ventricular arrhythmic event underwent ICD implantation for primary prevention. Among these patients, we enrolled consecutive 90 patients (67±11 years, male: 88%, biventricular-pacing: 47%, median follow-up: 1311 days) who met the MADIT2 criteria; left ventricular ejection fraction (LVEF) ≤30% more than 4 weeks after myocardial infarction.

Results: At the 3 years of follow-up, mortality rate (19.0%) was comparable with that of the MADIT2 ICD group (20.0%). The Kaplan-Meier event rate for appropriate ICD therapy (shock and anti-tachycardia pacing therapy) (33.0%) was also similar to that of the MADIT2 ICD group (35.9%). Multivariate analysis by Cox regression model revealed that left ventricular diastolic diameter (LVDd) ≥60mm (Hazard Ratio [HR]: 1.89, 95% Confidence Interval [CI]: 1.27-3.18, P=0.004) and non-sustained ventricular tachycardia (NSVT) (HR: 1.84, 95%CI: 1.22-2.73, P=0.002) were independent predictors for appropriate ICD therapy.

Conclusion: Appropriate ICD therapy was delivered in Japanese primary prevention patients as often as in the original MADIT2 ICD group and strongly predicted by dilated left ventricule and NSVT.